ABSTRACT

5

10

15

20

25

An optical modulator has, on a substrate having electro-optic effect, an optical waveguide including an input optical waveguide, two branching optical waveguides which branch a light beam incident to the input optical waveguide into two beams, two interaction optical waveguides which modulate a light beam phase by applying a voltage between a center electrode and ground electrodes, a multiplexing optical waveguide which multiplexes the light beams which propagate through the two interaction optical waveguides, and an output optical waveguide which is connected to the multiplexing optical waveguide through a multiplexing point. In the optical modulator, a high-order mode light beam which is generated by multiplexing the phase-modulated light beam and which is radiated from the multiplexing point to an inside of the substrate as two radiant light beams while the high-order mode light beam hardly propagates through the output optical waveguide, and at least one of the two radiant light beams is detected by a monitor photodetector. output optical waveguide is formed while deformed in order to secure a space for mounting the monitor photodetector such that at least one of optical axes of the radiant light beams in a substrate end portion located on the output optical wavequide and an end of the output optical waveguide are separated from each

other by a predetermined distance.